

January 9, 2006

Dean Allara, Managing Member  
CDS Stoneridge Utilities LLC  
354 Stoneridge Rd.  
Blanchard, ID 83804

RE: **Stoneridge, WLAP #LA-000017-02**, Revised Wastewater Land Application Permit

Dear Dean:

Enclosed are the revised pages to the CDS Stoneridge Utilities Wastewater Land Application Permit prepared by DEQ. This permit modification was initiated in response to your letter to DEQ dated 7/25/06.

Two changes were proposed, as follows:

1. The irrigation system piping was originally proposed to be buried laterals with risers for each sprinkler head. The revised system will use above ground 3" aluminum irrigation pipe for the laterals with the same number of risers and sprinkler heads as in the original proposal. Attached is the revised map from pg. 21 of the permit that shows the changed system.
2. The fencing in the original permit was mistakenly listed as chain link around the site. It was actually going to be 3 strand barbed wire which would have met the "Guidelines" for the disinfection level proposed. The Utility proposes to change the fencing requirement to only fence the north boundary of the site that parallels the County Rd. (Poirier Road) and extend the fence 100' east and west of the northeast and northwest corners. The land application site is 200' from the road and fence. The other three (3) sides of the site will be posted every 250' and all corners will be posted. The north boundary will be posted every 500'. Public access to the site is controlled by the property owner Sonny Poirier through a gated access road so it is not likely the public will be able to access the three other sides. Attached is the revised pg. 8 from the permit where the fencing is explained.

Both of these changes are approved. The change to above ground aluminum irrigation pipe will possibly require additional maintenance to assure that the joints do not leak. The fencing change will still maintain an adequate level of protection for the public from accidentally walking through the site.

No public comments were solicited for these minor modifications. Please replace the corresponding sheets from the original permit with these revised sheets. The permit expires **May 23, 2010**.

Please call if you have any questions.

Sincerely,

John Tindall, P.E.  
Staff Engineer  
enc.

c: Joe Olmstead, P.E., James A. Sewell & Associates, 9 South Washington, Suite 708, Spokane, WA 99201 (enc.)  
Wayne Benner, Stoneridge, P.O. Box 280, Blanchard, ID 83804 (enc.)  
Mark Mason, DEQ State Office, Boise (enc.)

Revised January 5, 2006

**MUNICIPAL  
WASTEWATER-LAND APPLICATION PERMIT  
LA-000017-02**

**CDS Stoneridge Utilities, LOCATED AT 364 Stoneridge Rd.,  
Blanchard, ID 83804** AND IN **Township 54N, Range 5W, Section 29** IS  
HEREBY AUTHORIZED TO CONSTRUCT, INSTALL, AND  
OPERATE A WASTEWATER-LAND APPLICATION TREATMENT  
SYSTEM IN ACCORDANCE WITH THE WASTEWATER-LAND  
APPLICATION RULES (IDAPA 58.01.17), THE WATER QUALITY  
STANDARDS AND WASTEWATER TREATMENT REQUIREMENTS  
(IDAPA 58.01.02), THE GROUND WATER QUALITY RULE (IDAPA  
58.01.11), AND ACCOMPANYING PERMIT APPENDICES AND  
REFERENCE DOCUMENTS. THIS PERMIT IS EFFECTIVE FROM  
THE DATE OF SIGNATURE AND EXPIRES ON **May 23, 2010**.

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Gwen P. Fransen  
Coeur d'Alene Regional Administrator  
Idaho Department of Environmental Quality

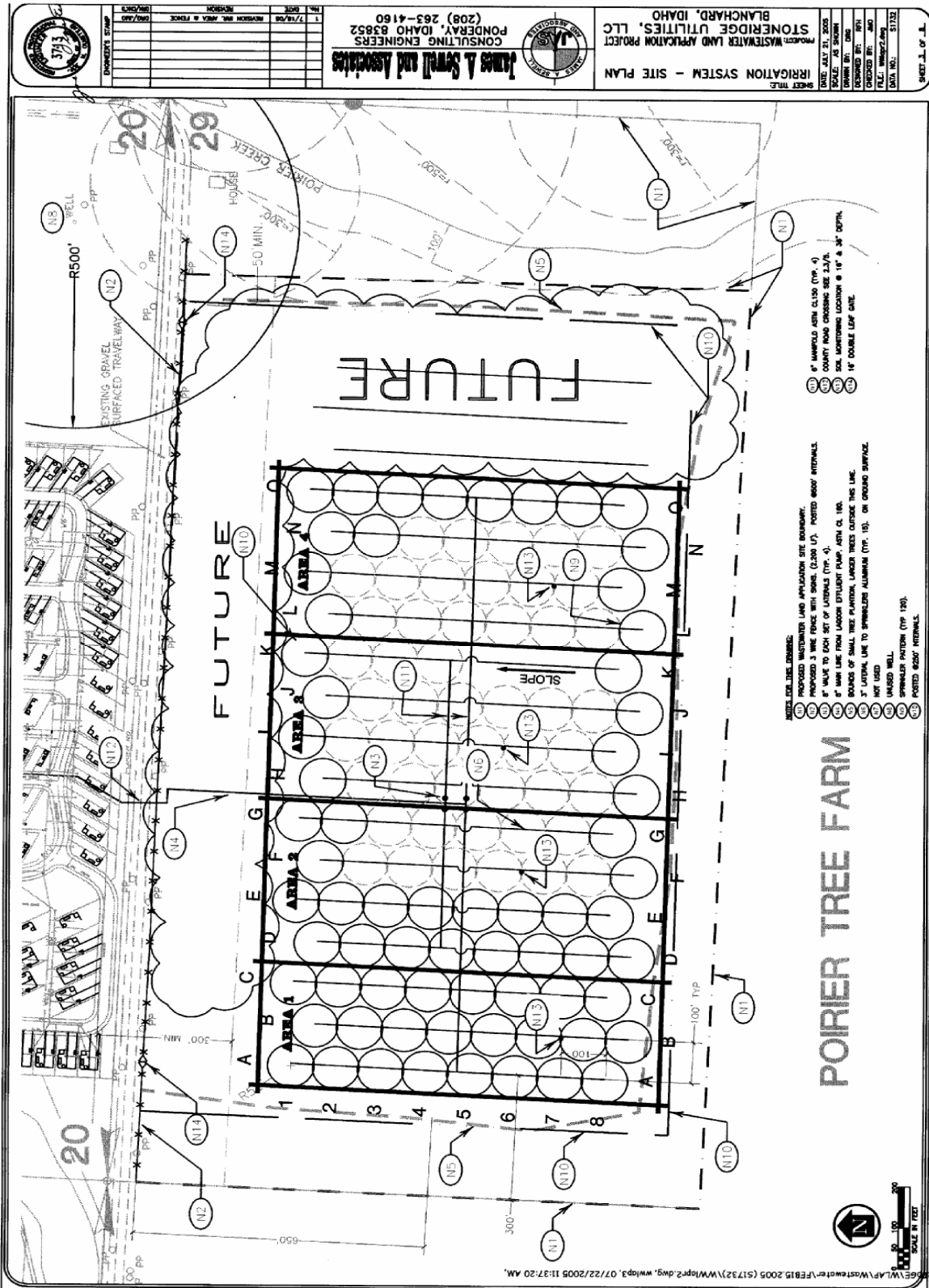
Date: January 5, 2006

**DEPARTMENT OF ENVIRONMENTAL QUALITY  
2110 Ironwood Parkway  
Coeur d'Alene, ID 83814  
(208) 769-1422  
FAX (208) 769-1404**

**POSTING ON SITE RECOMMENDED**

## F. Permit Limits and Conditions

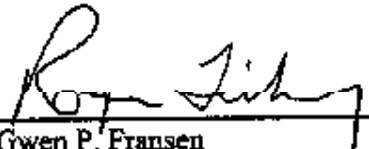
<b>Maximum Total Nitrogen Loading Rate, pounds / acre-year, each HMU (from all sources including waste solids and supplemental fertilizers).</b>	125% of typical crop uptake estimated to be 100 lbs./acre.
<b>Maximum Phosphorus Loading Rate, pounds / acre-year, each HMU (from all sources including waste solids and supplemental fertilizers).</b>	None. DEQ reserves the right to re-open this permit for inclusion of phosphorus limits.
<b>Construction Plans</b>	Prior to construction or modification of all wastewater facilities associated with the land application system or expansion, detailed plans and specifications shall be reviewed and approved by DEQ. Within 30 days of completion of construction, the permittee shall submit as-built plans for review and approval.
<b>Grazing</b>	A grazing management plan shall be submitted to DEQ for review and approval prior to any grazing activities. Grazing Plans shall follow the guidance located on the DEQ Internet site.
<b>Allowable crops</b>	Crops grown for direct human consumption (those crops that are not processed prior to consumption) are not allowed.
<b>Fencing and Posting</b>  Revised January 5, 2006	The north side of the site and 100' beyond (both east and west) of the northwest and northeast corners of the site will be fenced with a 3 strand barb wire fence. Signs will be posted designating the fields as wastewater reuse areas or equivalent and warning the public not to enter. The corners will also be posted. The signs shall be posted every 500 feet along the north boundary and every 250 feet along the west, south and east boundaries.
<b>Supplemental Irrigation Water Protection</b>	For systems with wastewater and fresh irrigation water interconnections, DEQ approved backflow prevention devices are required.
<b>Odor Management</b>	The wastewater treatment plant, land application facilities, and other operations associated with the facility shall not create a public health hazard or nuisance conditions, including odors.



A. Permit Certificate

**MUNICIPAL  
WASTEWATER-LAND APPLICATION PERMIT  
LA-000017-02**

**CDS Stoneridge Utilities, LOCATED AT 364 Stoneridge Rd.,  
Blanchard, ID 83804 AND IN Township 54N, Range 5W, Section 29 IS**  
HEREBY AUTHORIZED TO CONSTRUCT, INSTALL, AND  
OPERATE A WASTEWATER-LAND APPLICATION TREATMENT  
SYSTEM IN ACCORDANCE WITH THE WASTEWATER-LAND  
APPLICATION RULES (IDAPA 58.01.17), THE WATER QUALITY  
STANDARDS AND WASTEWATER TREATMENT REQUIREMENTS  
(IDAPA 58.01.02), THE GROUND WATER QUALITY RULE (IDAPA  
58.01.11), AND ACCOMPANYING PERMIT APPENDICES AND  
REFERENCE DOCUMENTS. THIS PERMIT IS EFFECTIVE FROM  
THE DATE OF SIGNATURE AND EXPIRES ON **June 1, 2010.**

 FOR G.P.F.

Gwen P. Fransen  
Coeur d'Alene Regional Administrator  
Idaho Department of Environmental Quality

Date: May 12, 2005

**DEPARTMENT OF ENVIRONMENTAL QUALITY  
2110 Ironwood Parkway  
Coeur d'Alene, ID 83814  
(208) 769-1422  
FAX (208) 769-1404**

**POSTING ON SITE RECOMMENDED**

## B. Permit Contents, Appendices, and Reference Documents

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### Appendices

1. Environmental Monitoring Serial Numbers
2. Site Maps

### References

1. Operation and Maintenance Manual
2. Silviculture Plan

The Sections, Appendices, and Reference Documents listed on this page are all elements of Wastewater-Land Application Permit LA-000017-02 and are enforceable as such. This permit does not relieve Stoneridge Utilities, hereafter referred to as the permittee, from responsibility for compliance with other applicable federal, state or local laws, rules, standards or ordinances.

## C. Abbreviations, Definitions

Ac-in	Acre-inch. The volume of water or wastewater to cover 1 acre of land to a depth of 1 inch. Equal to 27,154 gallons.
BMP or BMPs	Best Management Practices
COD	Chemical Oxygen Demand
DEQ or the Department	Idaho Department of Environmental Quality
Director	Director of the Idaho Department of Environmental Quality, or the Directors Designee, i.e. Regional Administrator
ET	Evapotranspiration – Loss of water from the soil and vegetation by evaporation and by plant uptake (transpiration)
GS	Growing Season – Typically April 01 through October 31 (214 days)
GW	Ground Water
GWQR	IDAPA 58.01.11 “Ground Water Quality Rule”
Handbook or Guidelines	A DEQ document titled "Guidance for Land Application of Municipal and Industrial Wastewater - October 2004"
HLRgs	Growing Season Hydraulic Loading Rate (HLR). Includes any combination of wastewater and supplemental irrigation water applied to land application hydraulic management units during the growing season. The HLRgs limit is specified in Section F. Permit Limits and Conditions.
HLRngs	Non-Growing Season Hydraulic Loading Rate (HLR). Includes any combination of wastewater and supplemental irrigation water applied to each hydraulic management unit during the non-growing season. The HLRngs limit is specified in Section F. Permit Limits and Conditions.
HMU	Hydraulic Management Unit (Serial Number designation is MU)
IWR	<p>Irrigation Water Requirement – Any combination of wastewater and supplemental irrigation water applied at rates commensurate to the moisture requirements of the crop, and calculated monthly during the growing season (GS). Calculation methodology for the IWR can be found at the following website: <a href="http://www.kimberly.uidaho.edu/water/appndxet/index.shtml">http://www.kimberly.uidaho.edu/water/appndxet/index.shtml</a>. The equation used to calculate the IWR at this website is:</p> $IWR = (CU - P_e) / E_i$ <p>CU is the monthly consumptive use for a given crop in a given climatic area. CU is synonymous with crop evapotranspiration</p> <p><math>P_e</math> is the effective precipitation. CU minus <math>P_e</math> is synonymous with the net irrigation requirement (IR)</p> <p><math>E_i</math> is the irrigation system efficiency. To obtain the gross irrigation water requirement (IWR), divide the IR by the irrigation system efficiency.</p>
IDAPA	Idaho Administrative Procedures Act.
LG	Lagoon
lb/ac-day	Pounds (of constituent) per acre per day
MG	Million Gallons (1 MG = 36.827 acre-inches)
MGA	Million Gallons Annually (per WLAP Reporting Year)
NGS	Non-Growing Season – Typically November 01 through March 31 (151 days)
NVDS	Non-Volatile Dissolved Solids (= Total Dissolved Solids less Volatile Dissolved Solids)
O&M manual	Operation and Maintenance Manual, also referred to as the Plan of Operation

## C. Abbreviations, Definitions

SAR	Sodium Absorption Ratio
SI	Supplemental Irrigation water applied to the land application treatment site.
Soil AWC	Soil Available Water Holding Capacity - the water storage capability of a soil to a depth at which plant roots will utilize (typically 60 inches or root limiting layer)
SMU	Soil Monitoring Unit (Serial Number designation is SU)
SW	Surface Water
TDS	Total Dissolved Solids or Total Filterable Residue
TDIS	Total Dissolved Inorganic Solids – The summation of chemical concentration results in mg/L for the following common ions: calcium, magnesium, potassium, sodium, chloride, sulfate, and 0.6 times alkalinity (alkalinity expressed as calcium carbonate). Nitrate, Silica and fluoride shall be included if present in significant quantities (i.e. > 5 mg/L each).
TMDL	Total Maximum Daily Load – The sum of the individual waste-load allocations (WLA's) for point sources, Load Allocations (LA's) for non-point sources, and natural background. Such load shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety that takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality. IDAPA 58.01.02 <i>Water Quality Standards and Wastewater Treatment Requirements</i>
Typical Crop Uptake	Typical Crop Uptake is defined as the median constituent crop uptake from the three (3) most recent years the crop has been grown. Typical Crop Uptake is determined for each hydraulic management unit. For new crops having less than three years of on-site crop uptake data, regional crop yield data and typical nutrient content values, or other values approved by DEQ may be used.
USGS	United States Geological Survey
WLAP	Wastewater Land Application Permit (or Program)
WLAP Reporting Year	The reporting year begins with the non-growing season and extends through the growing season of the following year, typically November 01 – October 31. For example, the 2000 Reporting Year was November 01, 1999 through October 31, 2000.
WW	Wastewater applied to the land application treatment site



## D. Facility Information

Legal Name of Permittee	CDS Stoneridge Utilities
Type of Wastewater	Domestic wastewater
Method of Treatment	Purestream Industries package treatment system consisting of an aerated equalization basin, a primary clarifier, a rotating biological contactor, a secondary clarifier and an aerated sludge storage tank. Disinfection of the effluent from the secondary clarifier occurs in 1,050' of 12" pipe prior to discharge into the 18 million gallon storage lagoon. Final treatment through slow rate land application on a Ponderosa Pine tree farm site.
Type of Facility	Mechanical treatment plant and lagoon storage.
Facility Location	The mechanical treatment plant and storage lagoon are located north of Poirier Ranch Road about 1 mile southwest from the community of Blanchard, Idaho. The land application is located about ¼ miles south from the lagoon to the south of Poirier Road.
Legal Location	Treatment Site: North ½ of the NE ¼ of Sec. 29, Township 54N, Range 5W., B.M.
County	Bonner
USGS Quad	Blanchard
Soils on Site	Kaniksu Sandy Loam (predominate) and Elmira Loamy Sand
Depth to Ground Water	About 70' below the ground surface at the land application site.
Beneficial Uses of Ground Water	Drinking water
Nearest Surface Water	Poirier Creek, an intermittent stream about 150' to the east at the closest point to the current site boundaries (about 600' from the closest sprinkler).
Beneficial Uses of Surface Water	Recreation and aquatic life.
Responsible Official Mailing Address Phone / Fax	Wayne Benner, Manager Stoneridge Utilities 364 Stoneridge Rd. Blanchard, ID 83804 (208)437-3148 / FAX (208) 437-3048
Facility Consultants Mailing Address Phone / Fax	Joe Olmstead, P.E. James A. Sewell & Assoc. 9 South Washington, Suite 708 Spokane, WA 99201 (509) 747-5794/ FAX (509) 747-5798

## E. Compliance Schedule for Required Activities

The Activities in the following table shall be completed on or before the Completion Date unless modified by the Department in writing.

Compliance Activity Number Completion Date	Compliance Activity Description
CA-017-01 Within six (6) months of permit issuance	Submit for Department review and approval an updated silviculture plan that recommends specific management practices on the site (such as estimated nitrogen and phosphorous demands of forest crop, weed control and tree density). Upon approval of this report, the silviculture plan shall be incorporated by reference into this permit and shall be enforceable as a part of this permit.
CA-017-02 Draft within six (6) months from Permit issuance  Final within one (1) year from Permit issuance	An Operation and Maintenance (O&M) Manual for the wastewater land application facilities, incorporating the requirements of this permit, shall be submitted to DEQ for review and approval. The O&M manual shall be designed for use as an operator guide for actual day-to-day operations that includes the wastewater collection system, mechanical treatment plant, disinfection system, storage lagoon and land application system. Specifically include all permit requirements and daily sampling/monitoring requirements to insure proper operation of the wastewater treatment facilities. The O&M Manual shall contain at a minimum all of the information required by the latest revision of the Plan of Operation Checklist in the WLAP Program Guidance and: a) An approved silviculture plan for the site; b) The record drawings for the land application site, disinfection system, storage lagoon and mechanical treatment plant; c) Written procedures for soil, soil moisture and effluent testing; and d) Procedures to minimize the migration of nuisance odors from the site. Upon approval, the manual shall be incorporated by reference into this permit and shall be enforceable as a part of this permit.
CA-017-03 Within six (6) months of permit issuance	Submit for DEQ review and approval a "Land Application Site Instrumentation Plan" that discusses the following instruments: 1. Daily precipitation and temperature instruments; and, 2. Soil moisture instruments. Upon approval, the plan shall be incorporated by reference into this permit and shall be enforceable as a part of this permit.
CA-017-04 Within one (1) year of permit issuance	Complete the installation of any instruments as recommended in the DEQ approved "Instrumentation Plan".
CA-017-05 In the year spring of 2009	Perform a leakage test on the storage lagoon in accordance with the current DEQ procedures. Submit the results to DEQ in the permit renewal application.
CA-017-06 Six (6) months prior to permit expiration	Submit an application for renewal of the wastewater land application permit.

## F. Permit Limits and Conditions

- 1) The Permittee is allowed to apply wastewater and treat it on a land application site as prescribed in the tables below and in accordance with all other applicable permit conditions and schedules.

Category	Permitted Limits and Conditions		
<b>Type of Wastewater</b>	Municipal Domestic Wastewater		
<b>Application Site Area</b>	27.5 acres		
<b>Application Season</b>	May 1 to September 30		
<b>Certified Operator</b>	Required. See IDAPA 58.01.02.406.		
<b>Reporting Year for Annual Loading Rates</b>	October 1 to September 30		
<b>Maximum Monthly Hydraulic Loading Rate, Growing Season (includes wastewater and supplemental irrigation water, if used)</b>	<u>Irrigation Water Requirement (inches)</u>		<u>(million gallons)</u>
	May	1.8"	1.3
	June	4.4"	3.3
	July	8.3"	6.2
	August	6.1"	4.6
	September	3.7"	2.7
	<b>Total</b>	<b>24.3"</b>	<b>18.1</b>
	Growing Season (GS) Hydraulic Loading Rate shall be no greater than the Irrigation Water Requirement (IWR) using data from the tables of the following University Of Idaho web site: <a href="http://www.kimberly.uidaho.edu/water/appndxet/index.shtml">http://www.kimberly.uidaho.edu/water/appndxet/index.shtml</a> . IWR is equal to the Mean IR data from these tables divided by the irrigation system efficiency.		
	In lieu of these tables, current climatic and evaporation data, or 30-year average data may be used to calculate the IWR, as defined in the 1994 Technical Interpretive Supplement, pages IV-6 and IV-7. Assume no carryover soil moisture and a leaching rate of zero in calculating the IWR. Application shall generally follow consumptive use rates for the crop throughout the season.		
<b>Daily Maximum Hydraulic Loading Rate</b>	A maximum of 305,000 gallons per day (about 1.54" per day) can be applied (in July only). Soil moisture probes located in each field (HMU) will be monitored on a daily basis when irrigating to determine if the HMUs can be irrigated. Monitoring will occur in the HMU(s) to be irrigated prior to starting irrigation and again every four (4) hours after that. If either the shallow or intermediate probes in a particular HMU have readings less than 10 centibars, irrigation cannot occur in that HMU until both probes read greater than 10 centibars. No application can occur if there is any standing water on the zones to be irrigated.		
<b>No Runoff</b>	No runoff is allowed from any site or fields used for wastewater land application during the "Application Season" except after a 25-year, 24-hour storm event or greater using Western Regional Climate Center (WRCC) Precipitation Frequency Map, Figure 28 "Isopluvials of 25-YR, 24-HR Precipitation". For this site, the 25-year, 24-hour event is 3 inches.		
<b>Ground Water Quality</b>	Ground Water Quality shall be in compliance with <i>Idaho Ground Water Quality Rule</i> IDAPA 58.01.11.		
<b>Maximum Total Nitrogen Loading Rate, pounds / acre-year, each HMU (from all sources including waste solids and supplemental fertilizers).</b>	125% of typical crop uptake estimated to be 100 lbs./acre.		

## F. Permit Limits and Conditions

Category	Permitted Limits and Conditions
<b>Maximum Phosphorus Loading Rate, pounds / acre-year, each HMU (from all sources including waste solids and supplemental fertilizers).</b>	None. DEQ reserves the right to re-open this permit for inclusion of phosphorus limits.
<b>Construction Plans</b>	Prior to construction or modification of all wastewater facilities associated with the land application system or expansion, detailed plans and specifications shall be reviewed and approved by DEQ. Within 30 days of completion of construction, the permittee shall submit as-built plans for review and approval.
<b>Grazing</b>	A grazing management plan shall be submitted to DEQ for review and approval prior to any grazing activities. Grazing Plans shall follow the guidance located on the DEQ Internet site.
<b>Allowable crops</b>	Crops grown for direct human consumption (those crops that are not processed prior to consumption) are not allowed.
<b>Fencing and Posting</b>	The entire site will remain fenced with the chain link fence. Signs shall be posted every 500 feet and at the corners designating the fields as wastewater reuse areas or equivalent and not to enter.
<b>Supplemental Irrigation Water Protection</b>	For systems with wastewater and fresh irrigation water interconnections, DEQ approved backflow prevention devices are required.
<b>Odor Management</b>	The wastewater treatment plant, land application facilities, and other operations associated with the facility shall not create a public health hazard or nuisance conditions, including odors.

## F. Permit Limits and Conditions

<b>Buffer Zone Distances (based on sprinkler irrigation)</b>	<b>Disinfection Level* (total coliform)</b>	<b>Distance to Public Access</b>	<b>Distances to Inhabited Dwellings</b>	<b>Distance to streams</b>	<b>Distance to private water sources</b>	<b>Distance to public water sources</b>	<b>Single sample maximum total coliform level</b>
	23/100 ml	50 feet	300 feet	100 feet	500 feet	2,500 feet	240/100ml

\*Compliance determination method for disinfection requirements is as follows:

- For determining compliance with the 23 / 100 ml disinfection level, the median value of the last five (5) results must not exceed 23 / 100 ml. In addition, no single sample value shall exceed 240 / 100 ml.

## G. Monitoring Requirements

- 1) Appropriate analytical methods, as given in the *"Guidance for Land Application of Municipal and Industrial Wastewater - October 2004"*, or as approved by the Idaho Department of Environmental Quality (hereinafter referred to as DEQ), shall be employed. A description of approved sample collection methods, appropriate analytical methods and companion QA/QC protocol shall be included in the Operation and Maintenance Manual.
- 2) The permittee shall monitor and measure parameters and submit information as stated in the Facility Monitoring Table in this section.
- 3) Samples shall be collected at times and locations that represent typical environmental and process parameters being monitored.
- 4) Monitoring locations are described in Appendix 1. Environmental Monitoring Serial Numbers.
- 5) Monitoring is required at the frequency shown in the table below if wastewater is applied anytime during the time period shown. Unless otherwise agreed in writing by the DEQ, data collected and submitted shall include, but not be limited to, the parameters and frequencies in the Facility Monitoring Table as follows.
- 6) If the soil management unit is less than 15 acres, use 5 sub-samples. If the soil management unit is greater than 15 acres, use 10 sub-samples.
- 7) Three (3) soil samples shall be collected at each sample location, one at 0-12 inches, one at 12-24 inches, and one at 24-36 inches. The soil samples collected at 0-12 inches from each sample location shall be composited. Similarly, all soil samples collected at 12-24 inches shall be composited and all soil samples collected at 24-36 inches shall be composited. This method will yield three samples for analysis, one for 0-12 inches, one for 12-24 inches and one for 24-36 inches for each soil management unit.
- 8) Ground Water Monitoring Procedure: Ground Water Monitoring Wells shall be purged a minimum of three casing volumes and/or until field measurements for pH, specific conductance and temperature meet the following conditions: two successive temperature values measured at least five minutes apart are within one degree Celsius of each other, pH values for two successive measurements measured at least five minutes apart are within 0.2 units of each other, and two successive specific conductance values measured at least five minutes apart are within 10% of each other. This procedure will determine when the wells are suitable for sampling for constituents required by the permit. Other procedures, such as low flow sampling, may be considered by DEQ for approval. The static water level shall be measured prior to pumping or sampling for ground water.
- 9) Annual reporting of monitoring requirements is described in Section H, Standard Reporting Requirements.
- 10) Surface water sampling guidance: DEQ to review and approve methods, timing and locations for sampling prior to initial sampling event.

## G. Monitoring Requirements

**Facility Monitoring Table**

Frequency	Monitoring Point	Description and Type of Monitoring	Parameters
Daily (when land applying)	Flow meter prior to discharge point of wastewater to land application fields	Volume of wastewater land applied	Gallons; Hours each zone of the irrigation system ran; Gallons/Month and acre-inches/month applied to each Hydraulic Management Unit
Daily in the HMU(s) being irrigated. Readings taken prior to starting irrigation and every four (4) hours after that.	Soil Moisture Probes. Two located in each HMU	Measuring soil moisture at a shallow (12-16" deep) and intermediate (24" deep) depths.	Centibars
Daily (when land applying)	Weather Station w/ rain gage and recording thermometer.	Record readings from thermometer and rain gage	High and low air temperatures and precipitation (inches/day)during each 24-hour period.
5 Days per Week	Sampling manhole prior to discharge into storage lagoon	Grab sample	Total chlorine residual (mg/l)
Daily	Flow meter into headworks	Influent flow monitoring	Gallons per day
In November and December, one (1) sample per month and in January to October samples taken every two (2) weeks (22 samples total per year).	Samples to be collected downstream from chlorine contact chamber at the sampling manhole and upstream from storage lagoon.	Grab sample	Total Coliform
Monthly (when land applying)	Sample tap prior to discharge of wastewater to Land Application Fields	Grab sample	Total Kjeldahl nitrogen (TKN), nitrate+nitrite-nitrogen, TDS, pH, total phosphorus
Monthly	Storage lagoon	Volume of wastewater in storage lagoon	Gallons
Annually	Hydraulic management unit	Acres used for land application	Acres
Annually	Hydraulic management unit	Report total nitrogen and phosphorus load from fertilizer or all other non-wastewater application.	Nitrogen and phosphorus applied in lbs/acre-year

## G. Monitoring Requirements

Frequency	Monitoring Point	Description and Type of Monitoring	Parameters
Annually	Hydraulic management unit	Calculate and report total nitrogen and phosphorus loading calculation from wastewater	Nitrogen and phosphorus applied in lbs/acre-year
Twice per year (in April and in October)	Soil monitoring unit	Composite soil sample	Electrical conductivity; nitrate-N; ammonium-N; pH; % organic matter; plant available phosphorous – (use Olsen method for soils with pH 6.5 or greater, use Bray method if soil pH is less than 6.5)
Annually	Hydraulic management unit	Calculate irrigation water requirement for crop grown	Volume (inches / acre and total gallons) for each month for GS.
Annually	All flow measurement locations	Flow measurement calibration of all flows to land application	Document the flow measurement calibration of all flow meters and pumps used directly or indirectly measure all wastewater, tail water, flushing water, and supplemental irrigation water flows applied to each HMU.



## H. Standard Reporting Requirements

1. The permittee shall submit an Annual Wastewater-Land Application Site Performance Report ("Annual Report") prepared by a competent environmental professional no later than January 31 of each year which shall cover the previous year (see Section F. for WLAP reporting period). The Annual Report shall include results for monitoring required in Section G, status of compliance activities, and an interpretive discussion of monitoring data (ground water, vadose zone, hydraulic loading, wastewater etc.) with particular respect to environmental impacts by the facility.
2. The annual report shall contain the results of the required monitoring as described in Section G. Monitoring Requirements. If the permittee monitors any parameter more frequently than required by this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the annual report.
3. The annual report shall be submitted to the Engineering Manager in the applicable Regional DEQ Office.

Boise Regional Office  
1445 N. Orchard  
Boise, ID 83706-2239  
208-769-1422

Coeur d'Alene Regional Office  
2110 Ironwood Parkway  
Coeur d'Alene, ID 83814

Idaho Falls Regional Office  
900 N. Skyline, Suite B  
Idaho Falls, ID 83402  
208-799-4370

Lewiston Regional Office  
1118 "F" Street  
Lewiston, ID 83501

Pocatello Regional Office  
444 Hospital Way, #300  
Pocatello, ID 83201  
208-736-2190

Twin Falls Regional Office  
601 Pole Line Road, Suite 2  
Twin Falls, ID 83301

A copy of the annual report shall also be mailed to:

Richard Huddleston, P.E.  
Wastewater Program Manager  
1410 N. Hilton  
Boise, ID 83706  
208-373-0561

4. Notice of completion of any work described in Section E. Compliance Schedule for Required Activities shall be submitted to the Department within 30 days of activity completion. The status of all other work described in Section E shall be submitted with the Annual Report.
5. All laboratory reports containing the sample results for monitoring required by Section G. Monitoring Requirements of this permit shall be submitted with the Annual Report.

## I. Standard Permit Conditions: Procedures and Reporting

1. The permittee shall at all times properly maintain and operate all structures, systems, and equipment for treatment, operational controls and monitoring, which are installed or used by the permittee to comply with all conditions of the permit or the Wastewater-Land Application Permit Regulations, in conformance with a DEQ approved, current Plan of Operations (Operations and Maintenance Manual) which describes in detail the operation, maintenance, and management of the wastewater treatment system. This Plan of Operations shall be updated as necessary to reflect current operations.
2. Wastewater(s) or recharge waters applied to the land surface must be restricted to the premises of the application site unless permission has been obtained from the DEQ authorizing a discharge into the waters of the State as stated in IDAPA 58.01.02.600.02.
3. Wastewater must not create a public health hazard or nuisance condition as stated in IDAPA 58.01.02.600.03. In order to prevent public health hazards and nuisance conditions the permittee shall:
  - a. Apply wastewater as evenly as practicable to the treatment area;
  - b. Prevent organic solids (contained in the wastewater) from accumulating on the ground surface to the point where the solids putrefy or support vectors or insects; and
  - c. Prevent wastewater from ponding in the fields to the point where the ponded wastewater putrefies or supports vectors or insects.
4. The permittee shall:
  - a. Manage the wastewater land application treatment site as an agronomic operation where vegetative cover is grown and harvested or grazed to utilize the nutrients and minerals in the wastewater, and;
  - b. Not hydraulically overload any particular areas of the wastewater land application treatment site.
5. All waste solids, including dredgings and sludges, shall be utilized or disposed in a manner which will prevent their entry, or the entry of contaminated drainage or leachate therefrom, into the waters of the state such that health hazards and nuisance conditions are not created; and to prevent impacts on designated beneficial uses of the ground water and surface water. The permittee's management of waste solids shall be governed by the terms of the DEQ approved Waste Solids Management Plan, which upon approval shall be an enforceable portion of this permit.
6. If the permittee intends to continue operation of the permitted facility after the expiration of an existing permit, the permittee shall apply for a new permit at least six months prior to the expiration date of the existing permit in accordance with the Waste Water Land Application Permit Regulations and include seepage tests on all lagoons per latest DEQ procedures.
7. The permittee shall allow the Director of the Idaho Department of Environmental Quality or the Director's designee (hereinafter referred to as Director), consistent with Title 39, Chapter 1, Idaho Code, to:
  - a. Enter the permitted facility.
  - b. Inspect any records that must be kept under the conditions of the permit.
  - c. Inspect any facility, equipment, practice, or operation permitted or required by the permit.
  - d. Sample or monitor for the purpose of assuring permit compliance, any substance or any parameter at the facility.
8. The permittee shall report to the Director under the circumstances and in the manner specified in this section:
  - a. In writing thirty (30) days before any planned physical alteration or addition to the permitted facility or activity if that alteration or addition would result in any significant change in information that was submitted during the permit application process.
  - b. In writing thirty (30) days before any anticipated change which would result in non-compliance with any permit condition or these regulations.
  - c. Orally within twenty-four (24) hours from the time the permittee became aware of any non-compliance which may endanger the public health or the environment at telephone numbers provided in the permit by the Director (see below)

DEQ Regional Office: see Permit Certification Page  
Emergency 24-Hour Number 1-800-632-8000

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## I. Standard Permit Conditions: Procedures and Reporting

- d. In writing as soon as possible but within five (5) days of the date the permittee knows or should know of any non-compliance unless extended by the DEQ. This report shall contain:
    - i. A description of the non-compliance and its cause;
    - ii. The period of non-compliance including to the extent possible, times and dates and, if the non-compliance has not been corrected, the anticipated time it is expected to continue; and
    - iii. Steps taken or planned to reduce or eliminate reoccurrence of the non-compliance.
  - e. In writing as soon as possible after the permittee becomes aware of relevant facts not submitted or incorrect information submitted, in a permit application or any report to the Director. Those facts or the correct information shall be included as a part of this report.
9. The permittee shall take all necessary actions to prevent or eliminate any adverse impact on the public health or the environment resulting from permit noncompliance.
10. The permittee shall determine (on an on-going basis) if any noxious weed problems relate to the permitted sites. If problems are present, coordinate with the Idaho Department of Agriculture or the local County authority regarding their requirements for noxious weed control. Also address these control operations in an update to the Operations and Maintenance Manual.

## J. Standard Permit Conditions: Modifications, Violations, and Revocations

1. The permittee shall furnish to the Director within reasonable time, any information including copies of records, which may be requested by the Director to determine whether cause exists for modifying, revoking, re-issuing, or terminating the permit, or to determine compliance with the permit or these regulations.
2. Both minor and major modifications may be made to this permit as stated in IDAPA 58.01.17.700.01 and 02 with respect to any conditions stated in this permit upon review and approval of the DEQ.
3. Whenever a facility expansion, production increase or process modification is anticipated which will result in a change in the character of pollutants to be discharged or which will result in a new or increased discharge that will exceed the conditions of this permit, or if it is determined by the DEQ that the terms or conditions of the permit must be modified in order to adequately protect the public health or environment, a request for either major or minor modifications must be submitted together with the reports as described in I. *Standard Reporting Requirements*, and plans and specifications for the proposed changes. No such facility expansion, production increase or process modification shall be made until plans have been reviewed and approved by the DEQ and a new permit or permit modification has been issued.
4. Permits shall be transferable to a new owner or operator provided that the permittee notifies the Director by requesting a minor modification of the permit before the date of transfer.
5. Any person violating any provision of the Waste Water Land Application Permit Regulations, or any permit or order issued thereunder shall be liable for a civil penalty not to exceed ten thousand dollars (\$10,000) or one thousand dollars (\$1,000) for each day of a continuing violation, whichever is greater. In addition, pursuant to Title 39, Chapter 1, Idaho Code, any willful or negligent violation may constitute a misdemeanor.
6. The Director may revoke a permit if the permittee violates any permit condition or the Wastewater Land Application Permit Regulations.
7. Except in cases of emergency, the Director shall issue a written notice of intent to revoke to the permittee prior to final revocation. Revocation shall become final within thirty-five (35) days of receipt of the notice by the permittee, unless within that time the permittee request an administrative hearing in writing to the Board of the Department of Environmental Quality pursuant to the Rules of Administrative Procedures contained in IDAPA 58.01.23.
8. If, pursuant to Idaho Code § 67-5247, the Director finds the public health, safety or welfare requires emergency action, the Director shall incorporate findings in support of such action in a written notice of emergency revocation issued to the permittee. Emergency revocation shall be effective upon receipt by the permittee. Thereafter, if requested by the permittee in writing, a revocation hearing before the Board of the Department of Environmental Quality shall be provided. Such hearings shall be conducted in accordance with the Rules of Administrative Procedures contained in IDAPA 58.01.23..
9. The provisions of this permit are severable and if a provision or its application is declared invalid or unenforceable for any reason, that declaration will not affect the validity or enforceability of the remaining provisions.
10. The permittee shall notify the DEQ at least six (6) months prior to permanently removing any permitted land application facility from service, including any treatment, storage, or other facilities or equipment associated with the land application site. Prior to commencing closure activities, the permittee shall: a) participate in a pre-site closure meeting with the DEQ; b) develop a site closure plan that identifies specific closure, site characterization, or cleanup tasks with scheduled task completion dates in accordance with agreements made at the pre-site closure meeting; and c) submit the completed site closure plan to the DEQ for review and approval within forty-five (45) days of the pre-site closure meeting. The permittee must complete the DEQ approved site closure plan.

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# Appendix 1

## Environmental Monitoring Serial Numbers

### HYDRAULIC MANAGEMENT UNITS

Serial Number	Description	Acres
HMU-017-01	Zone #1 (northwest)	6.4
HMU-017-02	Zone #2 (southwest)	6.4
HMU-017-03	Zone #3 (northeast)	7.3
HMU-017-04	Zone #4 (southeast)	7.3

### WASTEWATER SAMPLING POINTS

Serial Number	Description
WW-017-01	Grab sample taken from irrigation pipe prior to first sprinkler.

### SOIL MOISTURE PROBES (2 per site)

Serial Number	Description
SMP-017-01A & B	Zone #1- NW ('A' probe upper and 'B' probe lower)
SMP-017-02A & B	Zone #2- SW
SMP-017-03A & B	Zone #3- NE
SMP-017-04A & B	Zone #4- SE

### SOIL MONITORING UNITS

Serial Number	Description	Associated HMU
SU-017-01	Composite sample from 0-12" depth	Composite sample taken across all HMUs
SU-017-02	Composite sample from 12"-24" depth	Composite sample taken across all HMUs
SU-017-03	Composite sample from 24"-36" depth	Composite sample taken across all HMUs

Appendix 1  
Environmental Monitoring Serial Numbers

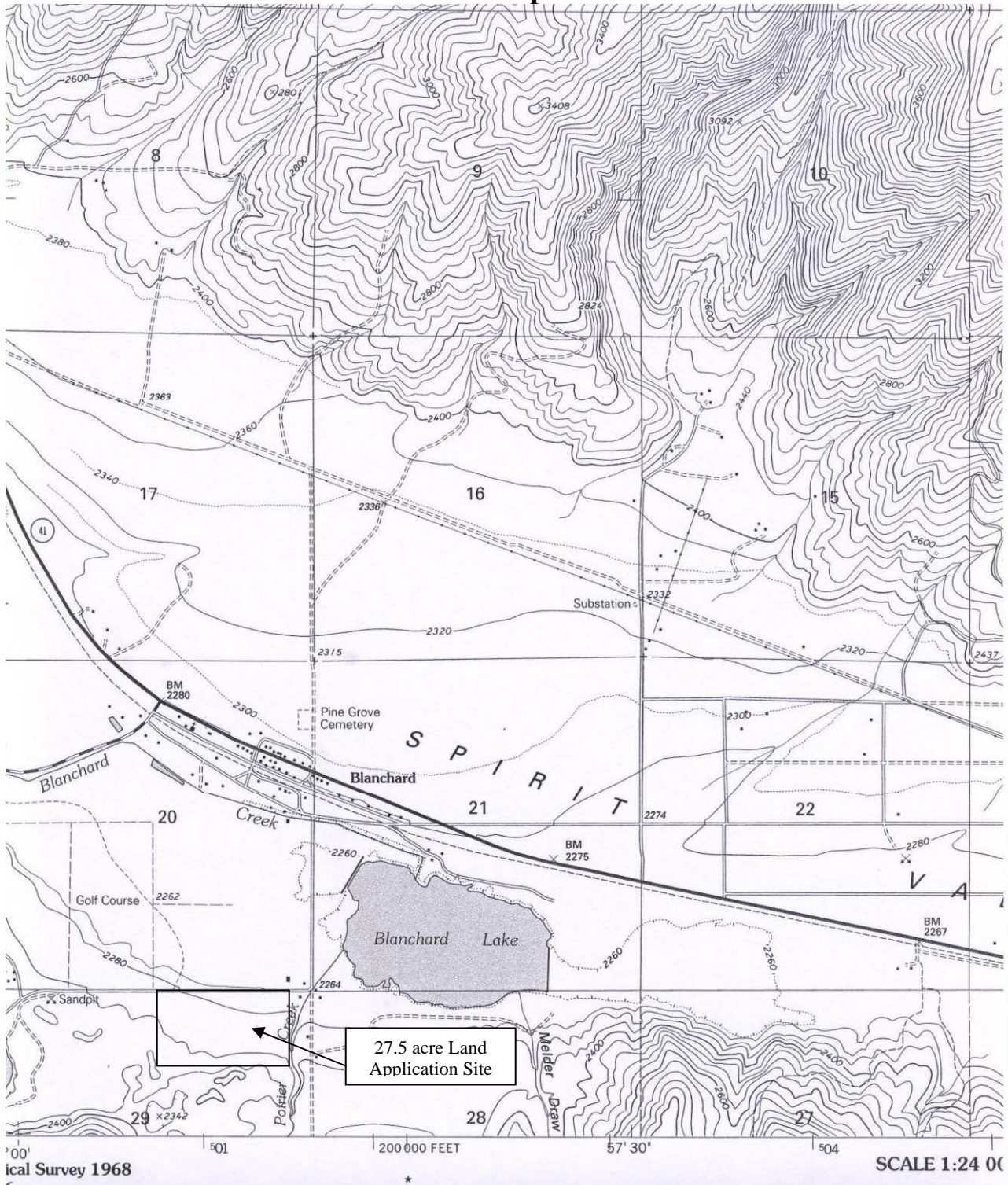
LAGOONS

Serial Number	Description
LG-017-01	Storage lagoon

# Appendix 2

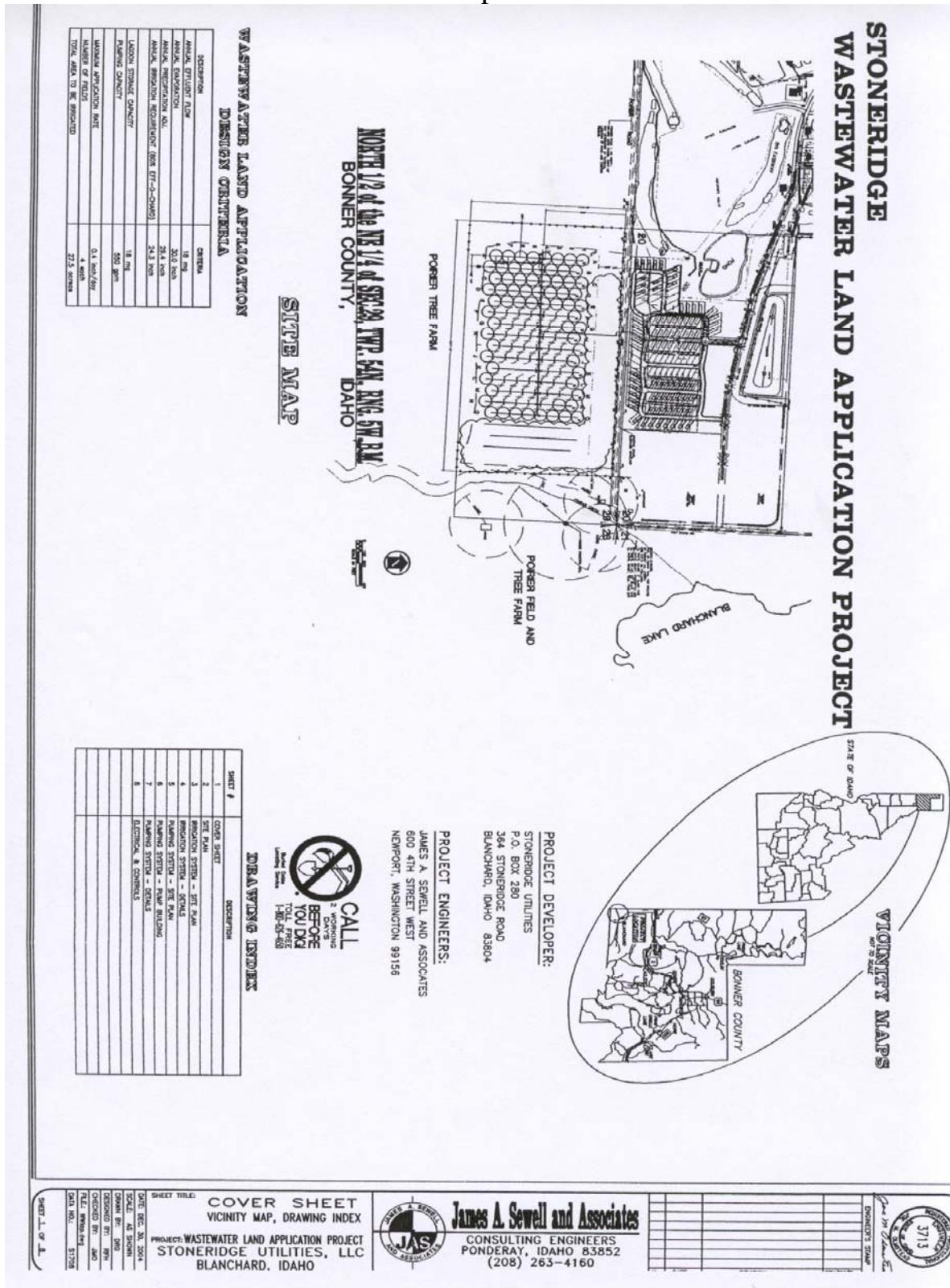
## Site Maps

### Site Map No. 1





Appendix 2  
Site Maps  
Site Map No. 2





Appendix 2  
Site Maps  
Site Map No. 3

